

I claim:

1 1. A tube for implantation into an eye to serve as a
2 conduit for aqueous humor to bypass angle structures and act as a
3 nidus for formation of a capsule for filtration of aqueous humor
4 to subconjunctival tissue, the nidus comprising a lateral portion
5 of the tube being peeled back thereby creating:

6 (a) an open side walled portion of the tube; and,

7 (b) a peeled back portion;

8 both of which act as nidi for membranous tissue formation of
9 filtration capsules.

1 2. The tube of claim 1, further comprising a plurality of
2 lateral, peeled back portions of the tube being removed, the
3 portions being located serially along the length of the tube.

1 3. The tube of claim 2 wherein the lateral, peeled back
2 portions are situated in a non-overlapping configuration.

1 4. The tube of claim 2 wherein the lateral, peeled back
2 portions are situated in an overlapping configuration.

1 5. The tube of claim 2 wherein the lateral, peeled back
2 portions are separated by whole cylindrical portions.

1 6. The tube of claim 5, further comprising a ligature
2 being tied to each of the whole cylindrical portions whereby flow
3 through the whole cylindrical portions may be prevented.

1 7. The tube of claim 6 wherein the ligatures are comprised
2 of slip knots.

1 8. The tube of claim 1 wherein the tube comprises a
2 proximal end and a distal end with the distal end comprising the
3 tube end being split.

1 9. The tube of claim 8 wherein an anchor location of the
2 tube for connection of the anchor location to the sclera at the
3 limbus is located on the proximal end of the tube.

1 10. The tube of claim 8 wherein an anchor located on the
2 distal end of the tube comprises a split end of the tube wherein
3 the end of the tube is split multiple times which split portions,
4 after a bleb is formed around them, serve as an anchor.

1 11. The tube of claim 1 wherein the diameter of the tube is
2 approximately 100 microns.

1 12. The anchor of claim 10 wherein the split end is
2 bifurcated.

1 13. The anchor of claim 10 wherein the split end is
2 quadricated.

1 14. The tube of claim 1 wherein a cross section of the open
2 side walled portion normal to the length of the tube is in the
3 shape of an arch.

1 15. A cylindrical tube for implantation into an eye to
2 serve as a conduit for aqueous humor to bypass angle structures
3 and serve as a nidus for formation of a filtration capsule, the
4 tube comprising lateral portions of the tube being removed
5 thereby creating a plurality of open side wall portions of the
6 tube.

1 16. The tube of claim 15, further comprising the open side
2 wall portions of the tube being located serially along the length
3 of the tube.

1 17. The tube of claim 16 wherein the open side wall
2 portions are situated in a non-overlapping configuration.

1 18. The tube of claim 16 wherein the open side wall
2 portions are situated in an overlapping configuration.

1 19. The tube of claim 16 wherein the open side wall

2 portions are separated by whole cylindrical portions.

1 20. The tube of claim 19, further comprising a ligature
2 being tied to each of the whole cylindrical portions whereby flow
3 through the whole cylindrical portions may be prevented.

1 21. The tube of claim 20 wherein the ligatures are
2 comprised of slip knots.

1 22. The tube of claim 15 wherein the tube comprises a
2 proximal end and a distal end with the distal end comprising the
3 tube end being split.

1 23. The tube of claim 22 wherein an anchor location of the
2 tube for connection of the anchor location to the sclera at the
3 limbus is located on the proximal end of the tube.

1 24. The tube of claim 22 wherein an anchor located on the
2 distal end of the tube comprises a split end of the tube wherein
3 the end of the tube is split multiple times which split portions,
4 after a bleb is formed around them, serve as an anchor.

1 25. The tube of claim 16 wherein the diameter of the tube
2 is approximately three hundred microns.

1 26. The anchor of claim 22 wherein the split end is
2 bifurcated.

1 27. The anchor of claim 22 wherein the split end is
2 quadricated.

1 28. The tube of claim 16 wherein a cross section of the
2 open side walled portion normal to the length of the tube is in
3 the shape of an arch.

1 29. A cylindrical tube for implantation into an eye to
2 serve as a conduit of aqueous humor to bypass angle structures,
3 comprising a series of lateral portions of the tube being removed
4 along the length of the tube thereby exposing the interior of the
5 tube.

1 30. The tube of claim 29 wherein the series of removed
2 lateral portions are separated by whole cylindrical portions.

1 31. The tube of claim 30 wherein a ligature is tied to each
2 of the whole cylindrical portions whereby flow through the whole
3 cylindrical portions may be prevented.

1 32. A cylindrical tube for implantation into an eye to
2 serve as a conduit of aqueous humor to bypass angle structures,

3 comprising:

4 (1) a lateral portion of the tube being removed thereby
5 exposing the interior of the tube; and,

6 (2) an extending portion extending outwardly from at least
7 one side of the exposed interior of the tube, the portion having
8 a cross section in the form of a wavy closed curve.

1 33. The cylindrical tube of claim 32 wherein the wavy
2 closed curve is scalloped.

1 34. The cylindrical tube of claim 32 wherein the wavy
2 closed curve is star shaped.

1 35. The cylindrical tube of claim 32 wherein the scalloped
2 portion has a radius of approximately 50 microns from the center
3 to the tip of the scallop, a tip width of approximately 5
4 microns, and extends up to 20 millimeters in a normal direction
5 from the tube.

1 36. The cylindrical tube of claim 32 wherein the extending
2 portion extends in a direction normal to the tube.

1 37. A method for reducing intraocular pressure by creating
2 a cylindrical bleb for producing improved accessory filtration by
3 implanting a cylindrical tube having a proximal end and a distal

4 end, the distal portion of the cylindrical tube side wall being
5 removed, into an eye to serve as a conduit for aqueous humor to
6 bypass angle structures and a nidus for capsule formation,
7 comprising the steps of:

8 (1) implanting the distal portion of the cylindrical
9 tube under the conjunctiva;

10 (2) inserting the proximal, intact end of the tube
11 into the anterior chamber through a needle track;

12 (3) allowing sufficient time for a bleb to grow around
13 the tube; and,

14 (4) releasing a ligature around the proximal end to
15 inflate the bleb.

1 38. The method of claim 37 comprising the additional step
2 after step (1) of anchoring the proximal end of the cylindrical
3 tube to the sclera at the limbus.

1 39. The method of claim 37 comprising the additional step
2 after step (2) of ligating the distal end to the needle track to
3 prevent hypotony.

1 40. The method of claim 37 comprising the additional step
2 after step (2) of placing a soluble plug between the tube and the
3 needle track to prevent hypotony.

1 41. The method of claim 37 comprising the additional steps
2 after step (4) of:
3 (5) measuring the intraocular pressure to determine if
4 additional drainage is required; and,
5 (6) if additional drainage is required, releasing
6 additional ligature(s) whereby additional blebs are inflated.

1 42. An implant for reduction of intraocular pressure
2 comprising means for customizing the hydraulic conductance of the
3 implant by increasing the surface area after installation without
4 requiring further surgery.